



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,265	02/19/2004	Young Nam Kim	006343.P002	7317

7590 08/30/2006
Stephen M. De Klerk
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Seventh Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025

EXAMINER

ONEILL, KARIE AMBER

ART UNIT	PAPER NUMBER
----------	--------------

1745

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/783,265	Applicant(s) KIM, YOUNG NAM	
	Examiner Karie O'Neill	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-16 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-16 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. Claims 8-16 and 20 are pending in this office action. Claims 1-7, 17-19 and 21-22 have been cancelled.

Claim Rejections - 35 USC § 112

2. Claim 8 recites the limitation "the current collector" in line 10. There is insufficient antecedent basis for this limitation in the claim.
3. Regarding claim 8, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 8, 14-16 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Dasgupta et al. (US 2003/0152835).

With regard to Claim 8, Dasgupta et al. disclose a process for preparing a carbon nanotube or carbon nanofiber electrode, comprising the steps of: (1) mixing a spherical graphite mixture containing carbon nanofibers with a binder (paragraph 0023); (2) preparing a pressed electrode material by first pressing the graphite, carbon nanofibers and binder (paragraph 0012); and (3) subsequently heat-treating the previously pressed electrode material (paragraph 0016) that is placed on a conductive substrate (paragraph 0012).

With regard to Claim 14, Dasgupta et al. disclose the process wherein the pressing in step (2) provides the electrode material in the shape of a disk or film. Dasgupta et al. call this a pressed compact (paragraph 0023).

With regard to Claim 15, Dasgupta et al. disclose the process wherein in step (3), the pressing and heating are carried out consecutively by first forming the pressed compact (paragraph 0012) and then heat treating the electrode after preparation (paragraph 0016).

With regard to Claim 16, Dasgupta et al. disclose the process wherein in step (3) the heat treatment is carried out by through thermal heating in a temperature range from 45°C to 80°C (paragraph 0016).

With regard to Claim 20, Dasgupta et al. disclose the carbon nanotube or carbon nanofiber electrode prepared for use in a lithium secondary battery (paragraph 0023).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1745

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dasgupta et al. (US 2003/0152835), as applied to Claims 8, 14-16 and 20 above.

With regard to Claim 9, Dasgupta et al. disclose the process for preparing a carbon nanotube or carbon nanofiber electrode in paragraph 5 above, but do not disclose wherein in step (2) the electrode material is uniformly dispersed on the current collector and then pressed, or simultaneously dispersed and the pressed. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to disperse the electrode material onto the current collector and then press it again since it is known in the art that pressing materials together forms a tighter and more secure bond.

With regard Claims 10-13, language that suggests or makes process steps optional are given little to no patentable weight. These claims are dependent from Claim 8, which optionally recites sulfur or metal nanoparticles.

Suggestions

8. Examiner suggests that if the recitation of "sulfur or metal nanoparticles" is to be positively claimed, then the limitation "such as" should be replaced with something like the term "comprising" or else it should be deleted from the claim.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karie O'Neill whose telephone number is (571) 272-8614. The examiner can normally be reached on Monday through Friday from 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karie O'Neill
Examiner
Art Unit 1745

KAO


DAI WEI YUAN
PRIMARY EXAMINER